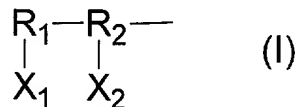


**WHAT IS CLAIMED IS:**

1. A method for lanthionizing keratin fibers comprising
  - (a) generating hydroxide ions in a composition, said step of generating comprising combining:
    - (i) at least one hydroxide composition comprising at least one hydroxide compound; and
    - (ii) at least one activating composition comprising at least one complexing agent effective for dissociating said at least one hydroxide compound in sufficient quantity to effect lanthionization of said keratin fibers;
  - (b) applying said composition comprising said generated hydroxide ions to keratin fibers for a sufficient period of time to lanthionize said keratin fibers; and
  - (c) terminating said lanthionization,
 wherein said at least one complexing agent comprises at least one group chosen from groups of formula (I) and salts thereof:



wherein:

- R<sub>1</sub> is chosen from a carbonyl group and a thiocarbonyl group;
- R<sub>2</sub> is chosen from CR groups wherein R is chosen from a direct bond to a neighboring atom, H, optionally substituted linear hydrocarbon groups,

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optionally substituted branched hydrocarbon groups, optionally substituted cyclic hydrocarbon groups, optionally substituted amino groups, optionally substituted thio groups, optionally substituted hydroxy groups, and halogen atoms;

- $X_1$  is chosen from hydroxyl groups and thiol groups; and
- $X_2$  is chosen from hydroxyl groups, amino groups, and thiol groups.

2. A method according to claim 1, wherein said at least one hydroxide compound is chosen from alkali metal hydroxides, alkaline earth metal hydroxides, transition metal hydroxides, lanthanide metal hydroxides, actinide metal hydroxides, Group III hydroxides, Group IV hydroxides, Group V hydroxides, Group VI hydroxides, organic hydroxides, and compounds comprising at least one hydroxide substituent which is at least partially hydrolyzable.

3. A method according to claim 2, wherein said at least one hydroxide compound is chosen from calcium hydroxide, barium hydroxide, magnesium hydroxide, aluminum hydroxide, cupric hydroxide, strontium hydroxide, molybdenum hydroxide, manganese hydroxide, zinc hydroxide, and cobalt hydroxide.

4. A method according to claim 3, wherein said at least one hydroxide compound is calcium hydroxide.

5. A method according to claim 1, wherein said at least one hydroxide compound is present in an amount ranging from 0.1% to 10% by weight relative to the total weight of the at least one hydroxide composition.

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6. A method according to claim 5, wherein said at least one hydroxide

7. A method according to claim 1, wherein said at least one activating

8. A method according to claim 7, wherein said at least one compound

9. A method according to claim 8, wherein at least one compound effective

10. A method according to claim 1, wherein said at least one activating

11. A method according to claim 10, wherein said at least one solvent is

12. A method according to claim 10, wherein said at least one solvent is

13. A method according to claim 1, wherein said at least one activating

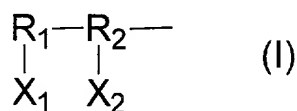
14. A method according to claim 1, wherein said at least one complexing

1. General Information	
1.1. Name of the Project	Project X
1.2. Date of Submission	2023-10-27
1.3. Author(s)	John Doe
1.4. Institution	ABC University
1.5. Contact Information	Phone: +1 123 456 7890
2. Executive Summary	
2.1. Purpose	The purpose of this project is to develop a new software application that will streamline the workflow of our department.
2.2. Objectives	The objectives of this project are to increase efficiency, reduce errors, and improve communication within the team.
2.3. Scope	The scope of the project includes the design, development, testing, and deployment of the software application.
2.4. Key Deliverables	The key deliverables of this project are a functional software application, user manuals, and training materials.
2.5. Risks	The risks associated with this project include budget overruns, delays, and resistance to change from users.
3. Detailed Description	
3.1. Introduction	This section provides an overview of the project and its importance to the organization.
3.2. Background	The background of the project is the current inefficiencies in our workflow and the need for a more streamlined process.
3.3. Methodology	The methodology used in this project is a combination of agile development and traditional waterfall models.
3.4. Implementation	The implementation of the project involves the development of the software application and the deployment of the hardware infrastructure.
3.5. Results	The results of the project show a significant improvement in workflow efficiency and a reduction in errors.
3.6. Conclusion	The conclusion of the project is that the software application has been successfully developed and deployed, meeting the objectives of the project.
3.7. Recommendations	The recommendations for future projects include regular communication with stakeholders and the use of agile development practices.
4. Financial Information	
4.1. Budget	The budget for this project is \$100,000, covering all costs from development to deployment.
4.2. Funding	The funding for this project is provided by the ABC University Research Fund.
4.3. Cost-Benefit Analysis	The cost-benefit analysis shows that the project is financially viable, with the benefits outweighing the costs.
4.4. Return on Investment	The return on investment for this project is estimated to be 150% over a three-year period.
5. Appendix	
5.1. Glossary	This section defines the key terms and acronyms used throughout the document.
5.2. References	This section lists the references used in the project, including books, articles, and websites.
5.3. Figures and Tables	This section contains the figures and tables that illustrate the data and results of the project.
5.4. Additional Information	This section provides additional information that is relevant to the project, such as contact details and a list of stakeholders.

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| 1.2. Date of Submission     | 2023-10-27  |
| 1.3. Author(s)              | John Doe  |
| 1.4. Institution            | ABC University  |
| 1.5. Contact Information    | Phone: +1 123 456 7890  |
| 2. Executive Summary        |   |
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| 2.3. Scope                  | The scope of the project includes the design, development, testing, and deployment of the software application.                                     |
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| 2.5. Risks                  | The risks associated with this project include budget overruns, delays, and resistance to change from users.  |
| 3. Detailed Description     |   |
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keratin fibers,

wherein said at least one complexing agent comprises at least one group chosen from groups of formula (I) and salts thereof:



wherein:

- R<sub>1</sub> is chosen from a carbonyl group and a thiocarbonyl group;
- R<sub>2</sub> is chosen from CR groups wherein R is chosen from a direct bond to a neighboring atom, H, optionally substituted linear hydrocarbon groups, optionally substituted branched hydrocarbon groups, optionally substituted cyclic hydrocarbon groups, optionally substituted amino groups, optionally substituted thio groups, optionally substituted hydroxy groups, and halogen atoms;
- X<sub>1</sub> is chosen from hydroxyl groups and thiol groups; and
- X<sub>2</sub> is chosen from hydroxyl groups, amino groups and thiol groups.

23. A composition according to claim 22, wherein said at least one hydroxide compound is chosen from alkali metal hydroxides, alkaline earth metal hydroxides, transition metal hydroxides, lanthanide metal hydroxides, actinide metal hydroxides, Group III hydroxides, Group IV hydroxides, Group V hydroxides, Group VI hydroxides, organic hydroxides, and compounds comprising at least one hydroxide substituent which is at least partially hydrolyzable.

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31. A composition according to claim 22, wherein said salts of said groups of formula (I) are chosen from salts comprising organic cations and salts comprising inorganic cations.

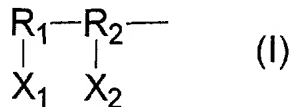
32. A composition according to claim 31, wherein said inorganic cations are chosen from sodium, lithium, and potassium.

33. A composition according to claim 22, further comprising dyes, anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, screening agents, preserving agents, proteins, vitamins, silicones, polymers such as thickening polymers, plant oils, mineral oils, and synthetic oils.

34/35. A composition according to claim 22, further comprising at least one solvent.

35/38. A composition according to claim 35, wherein said at least one solvent is chosen from water and DMSO.

36/37. A multicompartment kit comprising at least two compartments wherein a first compartment comprises a first composition for generating hydroxide ions comprising at least one hydroxide compound; and wherein a second compartment comprises an activating composition comprising at least one complexing agent effective for dissociating said at least one hydroxide compound in sufficient quantity to effect lanthionization of keratin fibers, wherein said at least one complexing agent comprises at least one group chosen from groups of formula (I) and salts thereof:



wherein:

- R<sub>1</sub> is chosen from a carbonyl group and a thiocarbonyl group;

- $R_2$  is chosen from CR groups wherein R is chosen from a direct bond to a neighboring atom, H, optionally substituted linear hydrocarbon groups, optionally substituted branched hydrocarbon groups, optionally substituted cyclic hydrocarbon groups, optionally substituted amino groups, optionally substituted thio groups, optionally substituted hydroxy groups, and halogen atoms;
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